UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,813	08/27/2001	Rebecca L. Poole	STL920000084US1	2901

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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/939,813
Filing Date: August 27, 2001
Appellant(s): POOLE ET AL.

George H. Gates, Reg. No. 33,500
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01 August 2005 appealing from the Office action

mailed 06 June 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings

which will directly affect or be directly affected by or have a bearing on the Board's decision in

the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in

the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

Stated grounds of rejection are correct.

(10) Response to Argument

(A) Applicant has argued, in substance, the following:

Regarding independent claims 1, 9 and 17, as noted on page 10, 4th paragraph of Appeal

Brief, "Sheard and Green do not teach or suggest deciding on the number of tiers, identifying

workstations and servers within each of the tiers, and defining processing performed by each tier

and its components, in the context of an Integrated Development Environment (IDE), that

includes a Topological Multi-Tier Business Application Composer, which is used by a developer

to graphically create and maintain a multi-tier business application, and includes a window and a

palette, the palette contains graphical constructs representing tiers and components of the tiers

that are used to create and maintain a graphical representation of the multi-tier business

application in the window."

Examiner's Response:

Examiner disagrees. See response to each limitation argued as follows:

-an Integrated Development Environment (IDE), executed by a computer, for creating and

maintaining a multi-tier business application on a multiple tier computer network,

(Sheard: Col. 3, lines 16- 18, "A visual interface (Fig. 17, #501) facilitates the design,

deployment, and runtime monitoring **(graphically create and maintain)** of an integrated

information system **(IDE)** implementation." (emphasis added))

-wherein the IDE includes a Topological Multi-Tier Business application Composer

(Sheard: Fig. 17, #501 / visual interface, #520 / System Integration & related text at col. 19, line 6 – col. 20 line 8.)

-that is used by a developer to create and maintain the multi-tier business application,

(Sheard: Col. 3, lines 16- 18, "A visual interface facilitates the design, deployment, and runtime monitoring (**create and maintain**) of an integrated information system implementation." (emphasis added) Col. 3, lines 24-26, "Various component icons may be packaged (**create**) together in business extension modules (**multi-tier business application**) to provide users with specific business integration capabilities". (emphasis added) Fig. 17, # 534, #536, #538, #539, #541 and related text at col. 19, lines 15-20, represent component adapters, a part of business extension module #1 (**business application**). (emphasis added) Fig. 19 and related text at col. 24, lines 55-67, "...a presentation of a menu item which permits the user to invoke a distribution planning panel...provides a tree view of the network environment (**Topological Multi-Tier Business application Composer**) currently in operation for a selected data integration project...first level (#554) represents the name of a project...second level nodes (#556) represent the names of the workstations...third level nodes (#558) indicate the various components operating on a particular workstation" (emphasis added)

-the Composer includes a window and a palette, and the palette contains graphical constructs

representing tiers and components of the tiers.

(Sheard: Fig. 17, #540, canvas / (window), #530, palette. Also see graphical constructs at Fig.

19, #552-#558, tiers, #560, components of tiers. (emphasis added))

-that are used to create and maintain a graphical representation of the multi-tier business

application in the window.

(Sheard disclosed (col. 3, lines 16- 18), "A visual interface facilitates the design, deployment,

and runtime monitoring (graphically create and maintain) of an integrated information system

implementation", col. 3, lines 24-26, "Various component icons may be packaged together in

business extension modules (multi-tier business application) to provide users with specific

business integration capabilities", col. 6, lines 11-13, "...facilitate the design, deployment, and

runtime monitoring (to create and maintain) of an integrated information system comprising a

number of disparage applications." (emphasis added))

Sheard suggested (col. 22, lines 60-62 & Fig. 17) the layout of a data integration project defined

(define tiers, workstations, servers and processing performed) within the canvas (#540) of

the visual interface (#501). (emphasis added) Sheard suggested (col. 23, lines 9-15) a

'Composer' (See Fig. 17, #520 System Integration), the user designs a data integration layout by

selecting various adapters and comonents displayed in the palette (#530) of the visual interface

(#501). Sheard suggested (col. 29, lines 32-36 & 56-60) "a meta-model approach is used to

provide a system wide specification of object and contained attribute definitions (**number of**

tiers, implicitly identifying workstations and servers) ...Each meta defined class is

stored...Each attribute consists of a single line which includes its name (**identifier**)..."

(emphasis added) Sheard suggested tiers (levels of nodes #554, #556, #558) that inherently

identify multiple workstations, in Fig. 19 and related text at col. 24, lines 51-67.

Sheard failed to explicitly disclose:

-when creating the multi-tier business application, the developer decides on a number of tiers,

identifies workstations and servers within each of the tiers, and defines processing performed by

each tier and its components.

However, Green disclosed (col. 1, lines 16-21) "...the design of a software component

architecture for the development of extensible tier software co mponent applications

(**development environment**)...". (emphasis added) Green disclosed (col. 4, lines 49-62), "The

present invention also encompasses rules to allow a given N-tier architecture to be

extended...adding a new tier (Fig. 1, #30) to result in a new, N+ 1 tier architecture...the present

invention provides rules to define and create a particular N-tier architecture (**deciding on the**

number of tiers, creating a multi-tier business application / Topological Multi-Tier

Business Application Composer) with a specified, initial number (developer **decides on a**

number of tiers) and type of tiers...where each initial tier satisfies one of a major portion of

system functionality (**defines processing performed by each tier and its components**), such as

business logic..." (emphasis added) Green disclosed (col. 3, lines 14-16) "GUID Globally

unique identifier, e.g. a number having a predetermined number of bits that uniquely identifies a

software component **(identifies workstations and servers)**. (emphasis added) See, Green: Fig.

5, #50, #58 as related to selection of the number of tiers and related text at col. 9, lines 5-6.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the

invention, to modify Sheard's invention, to include more explicit details regarding the

development of a multi-tier business application (N-tiered software architecture) as disclosed by

Green because both references provide a visual interface to facilitate the design and satisfy the

(Sheard: col. 2, lines 65 – 67) "need for an improved data integration system and

methodology"...(Sheard: col. 3, lines 5-6) "that is readily extensible." Green recognized that

reuse (Green: col. 1, line 39) of code is desirable to control the cost of development (Green: col.

1, line 50) and the need exists for improving development techniques in current software

architectures such as two-tier and three tier architectures (Green: col. 1, line 61). Graphical

development including defining the tiers and processes as disclosed by Sheard and Green

provides an extensible architecture.

The rejection of all claims is reproduced below with additional Figure and text citations to

further illustrate features in response to arguments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent

6,208,345 B1 to Sheard et al., in view of US Patent 6,854,107 B2 to Green et al.

Per claims 1, 9, and 17:

-system, method, article of manufacture;

(Sheard: Col. 3, lines 12-13, "...visual data integration system architecture and methodology",

col. 49, line 1-col. 50, line 17, "A computer readable medium tangibly embodying a program

executable...(article of manufacture)".)

-an Integrated Development Environment (IDE), executed by a computer, for creating and

maintaining a multi-tier business application on a multiple tier computer network,

(Sheard: Col. 3, lines 16- 18, "A visual interface (Fig. 17, #501) facilitates the design,

deployment, and runtime monitoring (**graphically create and maintain**) of an integrated

information system (**IDE**) implementation." (emphasis added))

-wherein the IDE includes a Topological Multi-Tier Business application Composer

(Sheard: Fig. 17, #501 / visual interface, #520 / System Integration & related text at col. 19, line 6 – col. 20 line 8.)

-that is used by a developer to create and maintain the multi-tier business application,

(Sheard: Col. 3, lines 16- 18, "A visual interface facilitates the design, deployment, and runtime monitoring (**create and maintain**) of an integrated information system implementation." (emphasis added) Col. 3, lines 24-26, "Various component icons may be packaged (**create**) together in business extension modules (**multi-tier business application**) to provide users with specific business integration capabilities". (emphasis added) Fig. 17, # 534, #536, #538, #539, #541 and related text at col. 19, lines 15-20, represent component adapters, a part of business extension module #1 (**business application**). (emphasis added)   Fig. 19 and related text at col. 24, lines 55-67, "…a presentation of a menu item which permits the user to invoke a distribution planning panel…provides a tree view of the network environment (**Topological Multi-Tier Business application Composer**) currently in operation for a selected data integration project…first level (#554) represents the name of a project…second level nodes (#556) represent the names of the workstations…third level nodes (#558) indicate the various components operating on a particular workstation" (emphasis added)

-the Composer includes a window and a palette, and the palette contains graphical constructs representing tiers and components of the tiers.

(Sheard: Fig. 17, #540, canvas / **(window)**, #530, **palette.** Also see **graphical constructs** at Fig. 19, #552-#558, **tiers,** #560, **components of tiers.** (emphasis added))

-that are used to create and maintain a graphical representation of the multi-tier business application in the window.

(Sheard disclosed (col. 3, lines 16- 18), "A visual interface facilitates the design, deployment, and runtime monitoring **(graphically create and maintain)** of an integrated information system implementation", col. 3, lines 24-26, "Various component icons may be packaged together in business extension modules **(multi-tier business application)** to provide users with specific business integration capabilities", col. 6, lines 11-13, "...facilitate the design, deployment, and runtime monitoring **(to create and maintain)** of an integrated information system comprising a number of disparage applications." (emphasis added))

Sheard suggested (col. 22, lines 60-62 & Fig. 17) the layout of a data integration project defined **(define tiers, workstations, servers and processing performed)** within the canvas (#540) of the visual interface (#501). (emphasis added) Sheard suggested (col. 23, lines 9-15) a 'Composer' (See Fig. 17, #520 System Integration), the user designs a data integration layout by selecting various adapters and comonents displayed in the palette (#530) of the visual interface (#501). Sheard suggested (col. 29, lines 32-36 & 56-60) "a meta-model approach is used to provide a system wide specification of object and contained attribute definitions **(number of tiers, implicitly identifying workstations and servers)** ...Each meta defined class is

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present invention also encompasses rules to allow a given N-tier architecture to be

extended…adding a new tier (Fig. 1, #30) to result in a new, N+ 1 tier architecture…the present

invention provides rules to define and create a particular N-tier architecture (**deciding on the**

number of tiers, creating a multi-tier business application / Topological Multi-Tier

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1, line 50) and the need exists for improving development techniques in current software

architectures such as two-tier and three tier architectures (Green: col. 1, line 61). Graphical

development including defining the tiers and processes as disclosed by Sheard and Green

provides an extensible architecture.

Per claims 2, 10, and 18:

-the icons are dragged from the palette onto the window, and thereafter connected together, in a

topological structure for the multi-tier business application.

(Sheard: Col. 23, lines 10-15, "...selecting various adapters and components (icons) displayed

in the palette...dragging...and dropping them onto the canvas (window)....", col. 23, lines 22-

23, "...selected adapters/components may be linked (connected) together...")

Per clams 3, 11, and 19:

-the components are selected from a group comprising workstations, servers, application files,

connections, data paths, user-defined processes, and other user-defined elements.

(Sheard: Col. 24, lines 55-67, "...distribution planning panel...provides a tree view of the

network environment currently in operation for a selected data integration

project...workstations...", col. 28, line 66-col. 29, line 4, "For each workstation participating in

a data integration project...", col. 29, line 19, "...communication may be effected through use of

a sockets type protocol" Sheard disclosed a network environment, including servers,

workstations, application files (Fig. 1) , connections (sockets), data paths (Fig. 5B), user-defined

elements / processes (Fig. 20))

Per claims 4, 12, and 20:

-the composer is used to perform one or more actions selected from a group comprising:

(Sheard: Col. 22, lines 3-5, "The information n the project file is used by the visual interface to

render a picture of a data integration implementation (actions) on its canvas", col. 22, lines 60-

62, "...layout of a data integration project is defined within the canvas of the visual interface...")

-creating the tiers involved in the multi-tier business application;

(Sheard: Col. 24, line 51-col. 25, line16, "The integration of data across multiple platforms and

multiple workstations is coordinated through the use of a distribution planning

facility...distribution planning panel...provides a tree view of the network

environment...workstations...components...")

-specifying the components of each of the tiers;

(Sheard: Col. 23, lines 10-13, "...the user designs a data integration layout when the System

Integration view is active by selecting various adapters and components (specifying the

components of the tiers) displayed in the palette...")

-specifying properties that identify each of the tiers and the components of the tiers.

(Sheard: Col. 25, lines 17-22, "The right portion of the distribution planning panel includes a

property sheet which is used to show the data associated with a selected item...property sheet

presents configuration data...")

Per claims 5, 13, and 21:

-the IDE further comprises a Meta-model that captures information entered via the Composer

and that persistently stores the information.

(Sheard: Col. 23, lines 41-45, "Confirming the integrity of the communication channel

established between two adapters is accomplished by comparing the meta-data models of the

source and destination adapters and determining whether the models are compatible...",col. 29,

lines 32-36, "...meta-model approach is used to provide a system wide specification of object

and contained attribute definitions...", col. 29, lines 51-61, "Storage of the meta-model...using a

file based approach...Each object definition is contained in a separate file ...Each meta defined

class is stored...")

Per claims 6, 14, and 22:

-the captured information is selected from a group comprising information about tiers,

workstations, servers, application files, connections, data paths, user-defined processes, and other

user-defined elements.

(Sheard: Col. 3, lines 34-43, "Format neutral data meta-models are employed to model the input

and output data requirements (captured information) of disparate systems and system

components...", col. 6, lines 27-32, "These component building blocks are graphical

representations of various data processing and telecommunications hardware and software

elements (tiers, workstations, servers, application files, connections, data paths, user-defined

processes, and other user-defined elements) ...")

Per claims 7, 15, and 23:

-the Meta-model is updated and kept in synchronization with any updates made to the multi-tier

business application via the Composer.

(Sheard: Col. 23, lines 47-51, "...meta-data model which indicates the data that the adapter is

expecting to receive and dispatch...", col. 24, line 19, "...meta-data model issues have been

resolved...(updated)", col. 25, lines 44-45, "...updating the charts dynamically...")

Per claims 8, 16, and 24:

-the Meta-model is accessible by other tools.

(Sheard: Col. 23, lines 41-45, "Confirming the integrity of the communication channel

established between two adapters is accomplished by comparing the meta-data models of the

source and destination adapters and determining whether the models are compatible (tool

compares and determines)...", col. 31, lines 13-36, "Various meta-model conversion utilities
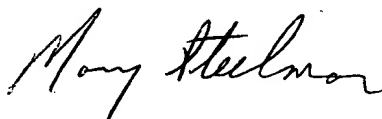
(tools) may be implemented ...")

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mary Steelman, Examiner

Conferees:

Wei Zhen, Supervisory Examiner

Tuan Dam, Supervisory Examiner

WEI Y. ZHEN
PRIMARY EXAMINER

TUAN DAM
SUPERVISORY PATENT EXAMINER